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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/039,208 | 01/04/2002 | Terrence J. Coleman | 20014 | 2039 |

7590 05/31/2005

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EXAMINER

LEE, MICHAEL

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2614

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,208

Applicant(s)

COLEMAN ET AL.

Examiner

M. Lee

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 17-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hwung et al. (5,473,373).

Regarding claim 1, Hwung shows steps of determining (Figure 3, I1 and I2), and steps of providing (equations 4, 5 and 6). It should be noted that the equations 4, 5 and 6 provide different level of correction precisions (see col. 5, line 55, to col. 6, line 27). As illustrated in Figure 8, the ROM 70 is selected to output gamma correction signal when MSB equals 0, and shifter/adder 80 is selected to output gamma correction signal when MSB equals 1.

Regarding claim 2, see ROM 70.

Regarding claim 3, see shifter/adder 80.

Regarding claim 4, see MUX 90.

Regarding claim 5, a digital to analog converter is inherently included in Hwung because the CRT display device is an analog device.

Regarding claims 6 and 7, see Figures 3 or 6.

Regarding claim 8, the ROM 70 provides a finer correction than the shifter/adder 80 in Hwung because ROM deals with the lower significant bits while the shifter/adder deals with MSB.

Regarding claim 17, Hwung shows a video signal processor 30, a gamma correction device 40, an inherently included digital to analog converter, and a gamma look up table 70 for provide two levels of gamma correction precisions (see equations 4 and 6, and col. 5, line 65, to col. 6, line 7). Equations 4 and 6 provide different levels of correction precisions because the former is a linear equation while the latter is a non-linear equation.

Regarding claims 18 and 19, see equations 4 and 6.

Regarding claim 20, see display 50.

Regarding claim 21, Hwung inherently includes digital to analog converter for converting digital video signal into analog video signal so that it could be displayed on the CRT 50.

Regarding claims 22 and 23, see equations 4 and 6.

Regarding claim 24, the low-level signal correction in Hwung is finer than the medium level signal correction because former is being compressed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwung et al. (5,473,373).

Regarding claims 9-16, in addition of 35 U.S.C 102(b) rejections above, Hwung does not specify the first and second look up tables as claimed. Instead, Hwung uses a single ROM to perform two equation operations (equations 4 and 6). In any event, it is well known that a single chip memory, with the same memory capacity, has no difference from a two-chip memory except the former is compacter in size than the latter. Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to replace the ROM 70 with two ROMs so that the equations 4 and 6 could be stored in the ROMs separately. Such modification would have considered an obvious design choice since there is no difference using a signal ROM or two ROMs as the look up table.

Response to Arguments

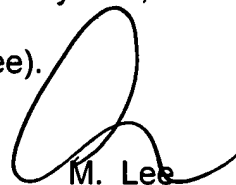
5. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Lee whose telephone number 571-272-7349. The examiner can normally be reached on Monday through Thursday from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'M. Lee', written over the printed name.

M. Lee
Primary Examiner
Art Unit 2614